

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Ramarge et al.	Art Unit :	3729
Serial No. :	10/762,290	Examiner :	Thiem D. Phan
Filed :	January 23, 2004	Conf. No. :	4684
Title :	MANUFACTURING PROCESS FOR SURGE ARRESTER MODULE USING PRE-IMPREGNATED COMPOSITE		

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Pursuant to 37 C.F.R. § 41.41, appellant responds to the Examiner's Answer as follows.

At pages 8-9 of the Answer, with respect to the obviousness rejection of independent claim 8 and its dependent claims, the Examiner states that "Appellants do not specify the exact value of 'the temperature or the compressive force' to be cited in the claims to clarify the claimed invention" and then the Examiner proceeds to list the guidelines laid out in the recent Supreme Court Case of KSR International Co. v. Teleflex Inc., 127 S.Ct. 1727 and seems to indicate that rationale (G) is applicable to the rejection. Rationale (G) relies on finding "[s]ome teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention."

Appellant is not sure how rationale (G) is relevant to whether claim 8 specifies the exact value of the temperature or the compressive force. The third step of claim 8 requires that the wrapped electrical module assembly is compacted "by heating the shrink film such that the shrink film shrinks and applies a compressive force to the electrical module assembly," and the fourth step of claim 8 requires that the "reinforcing structure" is cured "at a temperature at which the shrink film no longer applies a compressive force." Thus, the temperature at which the shrink film is heated in the third step is a temperature at which the shrink film shrinks and applies a compressive force and the temperature of curing in the fourth step is a temperature at which the shrink film no longer applies a compressive force. The value of the temperature is therefore dependent on whether the shrink film applies a compressive force in each of these steps and the claim language appears clear on this point. Moreover, claim 8 merely requires that a

compressive force be applied to the electrical module assembly in the third step and that the shrink film would no longer apply a compressive force in the fourth step.

At page 10 of the Answer, with respect to the same rejection, the Examiner points to col. 6, line 51 of Doone to show heat curing of a resin and to col. 6, line 52 of Doone to show removal of heat-shrink tape. Appellant reproduces this passage of Doone, which is the only passage of Doone that describes the procedure for curing: "Alternatively, [curing of the resin] may be effected by the equivalent technique of helically wrapping the arrester core with its pre-preg wrapping in a heat-shrink tape (e.g., a Mylar tape), then heat-curing the resin and finally removing the tape." Thus, at most, Doone teaches that an arrester core is wrapped in a heat-shrink tape, the resin is cured, and the tape is removed. Doone therefore fails to describe or suggest that the resin is cured at a temperature at which the heat-shrink tape no longer applies a compressive force.

Realizing this deficiency, the Examiner states at page 10 of the Answer that it would have been obvious

to understand that during the step (c) of heat-curing the resin, the heat-shrink tape shrinks, and thus creates a compressive force due to its shrinking effect. Then once the temperature for heat curing stops, the shrinking process of the shrink film stops, alleviating the compressive force, which is no longer generated by the shrinking effect of the shrink tape.

Appellant agrees that during the heat curing that Doone describes at col. 6, line 51, the heat-shrink tape would apply a compressive force. However, the Examiner is wrong that "once the temperature of the heat curing stops, the shrinking process of the shrink film stops." Rather, heat-shrink tape continues to apply its compressive force even after the heat curing stops. The Examiner then states that "Doone further teaches the removing of the shrunk tape, which completely frees the reinforcing structure or pre-preg wrapping from the shrunk tape" and therefore "Doone at a minimum teaches the claimed limitation of 'curing reinforcing structure of the wrapped electrical module assembly at a temperature at which the shrink film no longer applies a compressive force.'" Doone does teach that the tape is removed. However, there is nothing in this passage of Doone or in any other passage of Doone that describes that the resin is cured at a temperature at which the shrink tape no longer applies a compressive force. There are

two possible scenarios for how the shrink tape in Doone is removed: either the shrink tape is removed while it is being heat cured or the shrink tape is removed after it has been cooled down to the point that it could be removed. If Doone's shrink tape is removed while it is being cured, then the shrink tape would be removed while it is being cured and applying a compressive force. If Doone's shrink tape is removed after it has cooled down (which is the most likely scenario), then the shrink tape would be removed while it is still applying a compressive force because, as discussed above, the mere act of cooling the shrink tape would not cause it to no longer apply a compressive force.

At pages 12-13 of the Answer, the Examiner asserts that "it is well known that a shrink tape shrinks a certain temperature while creating certain compressive force." Appellant is fully aware that previous processes describe shrinking of tape to create a compressive force since this is by definition how a shrink tape works. What appellant is not aware of, and what the Examiner has still not shown to exist, is a process that includes both the step of compacting a wrapped electrical module assembly by heating the shrink film such that the shrink film shrinks and applies a compressive force, and the step of curing the reinforcing structure of the wrapped electrical module assembly at a temperature at which the shrink film no longer applies a compressive force.

For these reasons, and the reasons stated in the Appeal Brief, appellant submits that the final rejection should be reversed.

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This reply brief is being filed concurrently with a request for an oral hearing. Please apply any additional charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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